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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/724,158	12/01/2003	Tapesh Yadav	037768-0109	9386

22428 7590 04/20/2005

FOLEY AND LARDNER
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WASHINGTON, DC 20007

EXAMINER

KOSLOW, CAROL M

ART UNIT	PAPER NUMBER
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1755

DATE MAILED: 04/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/724,158

Applicant(s)

YADAV, TAPESH

Examiner

C. Melissa Koslow

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4/28/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

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Applicant's claim for domestic priority under 35 U.S.C. 119(e) is acknowledged. However, the provisional application upon which priority is claimed fails to provide adequate support under 35 U.S.C. 112 for claims 1-20 of this application. The Examiner was unable to find the claimed transparency, the claimed packing number, the composition of claim 13 and the processes of claims 14, 16 and 17 in the provisional application. Applicant needs to point out where in the provisional application the above subject matter is located in order for domestic priority to be granted.

The disclosure is objected to because of the following informalities: The status of all the applications cited in the specification needs to be updated. Appropriate correction is required.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: Numbers 102 and 104. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

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The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description:

Reference number 112 in paragraph [0065]. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-3, 8-12, 15, 16 and 18-20 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 5, 8, 12, 16 and 22-27 of copending Application No. 10/441,501. Although the

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conflicting claims are not identical, they are not patentably distinct from each other because one of ordinary skill in the art would have found it obvious to color inks, plastics, ceramics and paints using the pigments claimed in copending Application No. 10/441,501 by the conventional methods of mixing or coating, where the dried coating bonds the pigment to the coating binder and to the coated article and where in the solidified plastic, the pigment is bonded to the plastic. Since the pigments in copending Application No. 10/441,501 are nanosized, they must have a packing size that at least overlaps the claimed range, absent any showing to the contrary.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims 1-3, 8, 9, 10-12, 15, 16 and 18-20 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 3, 6 and 7 of U.S. Patent No. 6,830,822. Although the conflicting claims are not identical, they are not patentably distinct from each other because one of ordinary skill in the art would have found it obvious to color inks, plastics, ceramics and paints using the pigments claimed in U.S. patent 6,830,822 by the conventional methods of mixing or coating, where the dried coating bonds the pigment to the coating binder and to the coated article and where in the solidified plastic, the pigment is bonded to the plastic. Since the pigments in the patent are nanosized, they must have a packing size that at least overlaps the claimed range, absent any showing to the contrary.

Claims 1, 9, 10, 12 and 18-20 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 3 and 6-9 of U.S. Patent No. 6,849,109. Although the conflicting claims are not identical, they are not

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patentably distinct from each other because this patent claims an ink comprising the nanopigments claimed in this application, thus the reference implicitly teaches coloring an ink by mixing the pigment with the other ink components. Since the pigments in the patent are nanosized, they must have a packing size that at least overlaps the claimed range, absent any showing to the contrary.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 6, 8, 10, 12, 15 and 18-20 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by U.S. patent 4,539,047.

This reference teaches a varnish, which is a type of paint, for wood comprising transparent iron oxides, which are known to have a particle size of less than 0.1 micron (100 nm). This size range falls within defined particle size for the claimed nanopigments, which is less than 250 nm, and therefore one of ordinary skill in the art would expect the taught pigment to have a packing number that falls within the claimed range absent any showing to the contrary. The varnish is colored with the transparent iron oxides. The varnish is produced by mixing the pigment and a resin, which is a plastic and the varnish is coated onto wood. The reference teaches the claimed process.

Claims 1-3, 10, 12, 15 and 18-20 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by U.S. patent 4,629,513.

This reference teaches a zinc oxide/zinc ferrite pigment used to color surface coatings, ceramics, plastics and finishes. The Examples 1 and 2 teaches the size of the

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pigment is 0.05 micron (50 nm). This size range falls within defined particle size for the claimed nanopigments, which is less than 250 nm, and therefore one of ordinary skill in the art would expect the taught pigment to have a packing number that falls within the claimed range absent any showing to the contrary. One of ordinary skill in the art knows that the pigment is mixed with the components for color surface coatings, ceramics, plastics and finishes and when it is used in a surface coatings, it is known that the surface coating is coated onto an article to color the article. The reference teaches the claimed process.

Claims 1, 7, 9, 13 and 17-19 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. patent 4,927,466.

This reference teaches azo pigments having a size in the range of 0.01-0.04 micron (10-40 nm). This size range falls within defined particle size for the claimed nanopigments, which is less than 250 nm, and therefore one of ordinary skill in the art would expect the taught pigment to have a packing number that falls within the claimed range absent any showing to the contrary. The taught pigments are used to color printing inks. One of ordinary skill in the art knows the ink is colored by mixing the pigment with the other components of the ink. One of ordinary skill in the art knows that when the taught inks are applied to paper, the fibers in the paper are impregnated with the pigment in the ink. The reference teaches the claimed process.

Claims 1, 2, 6, 8, 10, 12, 14, 15 and 18-20 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. patent 5,368,640.

This reference teaches a transparent red and yellow iron oxides, which are known to have a particle size of less than 0.1 micron (100 nm) which is used to color plastics,

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wood varnishes and automotive lacquers. This size range falls within defined particle size for the claimed nanopigments, which is less than 250 nm, and therefore one of ordinary skill in the art would expect the taught pigment to have a packing number that falls within the claimed range absent any showing to the contrary. One of ordinary skill in the art knows that the pigment is mixed with the components of plastics, wood varnishes and lacquers and when it is used in the varnish or lacquer, it is known that the varnish or lacquer coated onto an article to color the article. To form red pigments, the taught yellow iron oxide pigment are heated. The reference teaches the claimed process.

Claims 1, 2, 5, 10, 11, 12, 15 and 18-20 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by U.S. patent 6,060,154.

This reference teaches a coating compositions for glass and plastic articles where the composition is coated onto the article. The composition comprises pigments having a particle size of 100 nm or less. This size range falls within defined particle size for the claimed nanopigments, which is less than 250 nm, and therefore one of ordinary skill in the art would expect the taught pigment to have a packing number that falls within the claimed range absent any showing to the contrary. The pigment can be iron oxides, titanium nitride or tantalum nitride (col. 2, lines 55-60). The coating composition is produced by mixing the pigment with the other components of the coating composition. The reference teaches the claimed process.

Claims 1, 2, 6, 7, 9, 11, 12 and 17-20 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by U.S. patent 6,110,266.

This reference teaches an ink comprising nitrides of titanium, zirconium, hafnium, silicon, germanium or tin having a particle size of 0.1-50 nm. This size range falls within

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defined particle size for the claimed nanopigments, which is less than 250 nm, and therefore one of ordinary skill in the art would expect the taught pigment to have a packing number that falls within the claimed range absent any showing to the contrary. The ink is applied to paper, which means the fibers in the paper are impregnated with the pigment in the ink, wood, plastic or textile, which is made of fibers. The reference teaches the claimed process.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 4, 10, 12, 16 and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 5,164,007.

This reference teaches cement colored with a manganese ferrite pigment. The cement is colored with the ferrite by mixing the pigment with the components of the cement and the pigment is bonded to the cement when it is set. The pigment has a particle size in the range of 0.1-1 microns (col. 2, lines 3-4), which overlaps the defined size of “nanopigment” which is less than 250 nm. Product claims with numerical ranges which overlap prior art ranges were held to have been obvious under 35 USC 103. *In re Wertheim* 191 USPQ 90 (CCPA 1976); *In re Malagari* 182 USPQ 549 (CCPA 1974); *In re Fields* 134 USPQ 242 (CCPA 1962); *In re Nehrenberg* 126 USPQ 383 (CCPA 1960). Therefore, one of ordinary skill in the art would expect the taught pigment to have a packing number that overlaps the claimed range absent any showing to the contrary. The reference suggests the claimed process.

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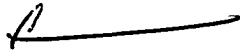
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melissa Koslow whose telephone number is (571) 272-1371. The examiner can normally be reached on Monday-Friday from 8:00 AM to 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorenzo, can be reached at (571) 272-1233.

The fax number for all official communications is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

cmk
April 18, 2005


C. Melissa Koslow
Primary Examiner
Tech. Center 1700